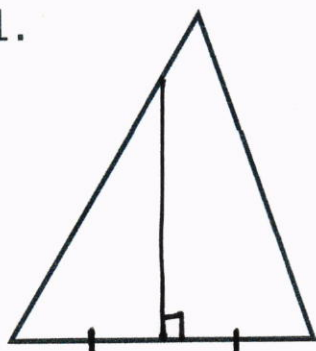


STATION 1 Vocabulary.

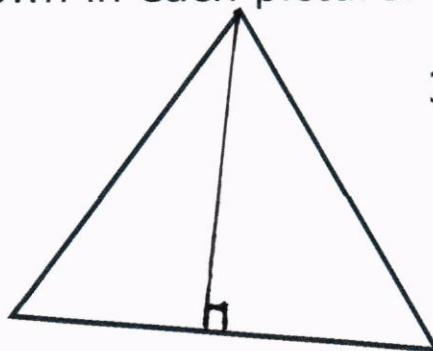
Identify the segment shown in each picture.

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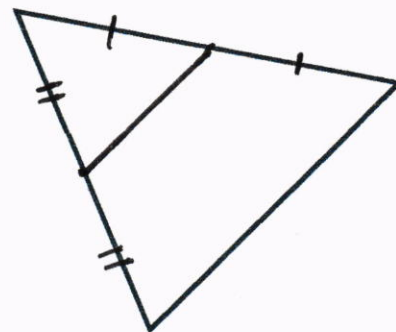
1.



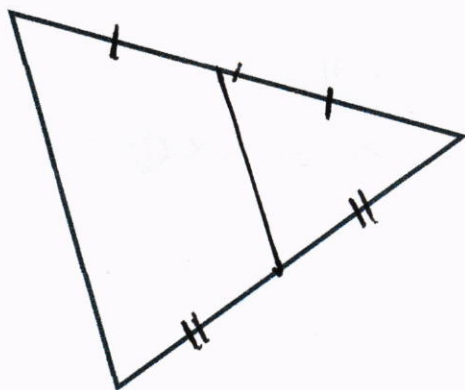
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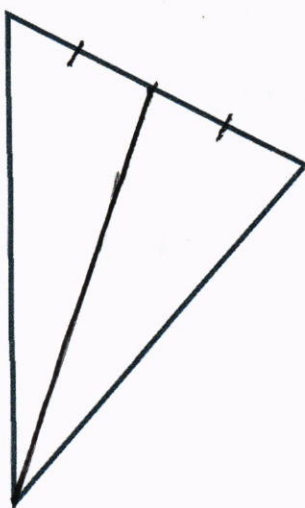
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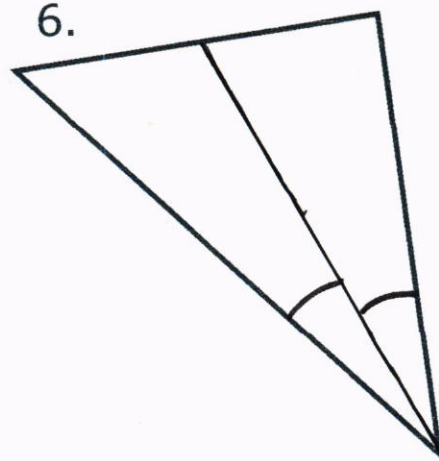
4.



5.



6.



7. A _____ is a line (or ray or segment) that "cuts in half" something else.

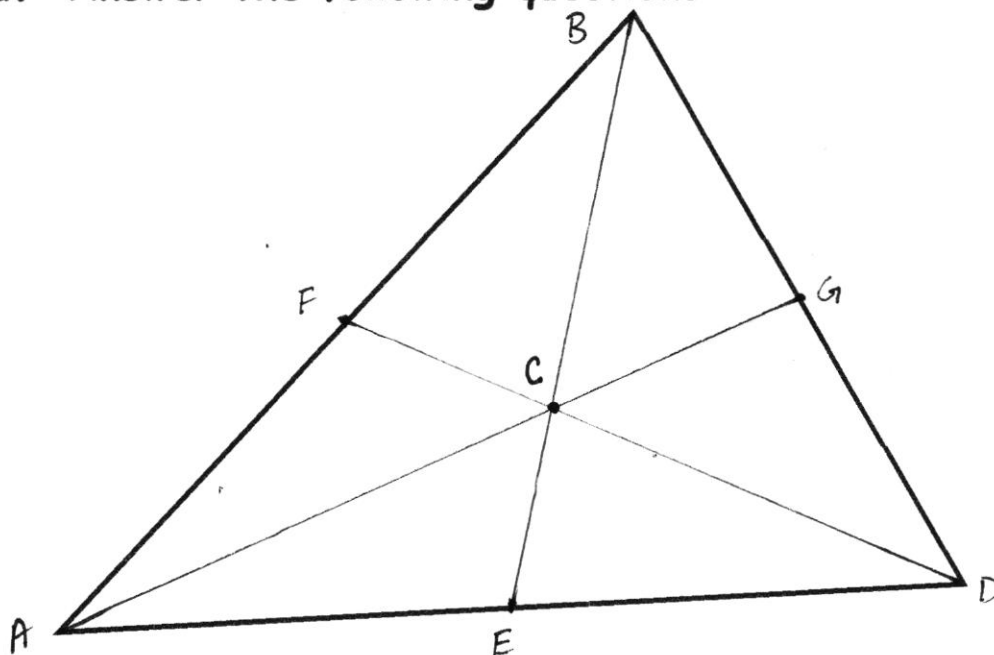
8. The point where all 3 median meet is called the _____.

9. A "point in the middle" is called a _____.

STATION 2 Medians & the Centroid

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Point C is the centroid. Answer the following questions:



10. If $\overline{CE} = 7$, then $\overline{CB} = ?$ $\overline{BE} = ?$

11. If $\overline{AC} = 22$, then $\overline{CG} = ?$ $\overline{AG} = ?$

12. If $\overline{FD} = 12$, then $\overline{FC} = ?$ $\overline{CD} = ?$

13. If $\overline{GC} = 3$, then $\overline{CA} = ?$ $\overline{AG} = ?$

14. If $\overline{BC} = 20$, then $\overline{CE} = ?$ $\overline{BE} = ?$

15. If $\overline{AG} = 15$, then $\overline{CG} = ?$ $\overline{AC} = ?$

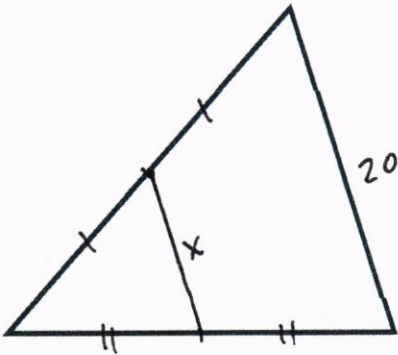
STATION 3

Midsegments

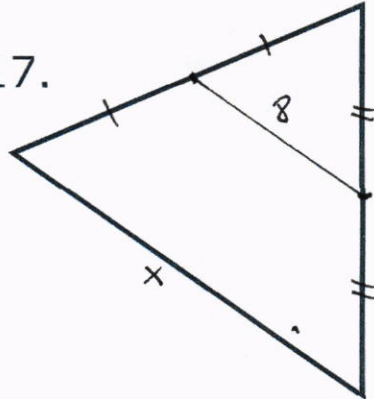
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Solve for X in each of the following triangles

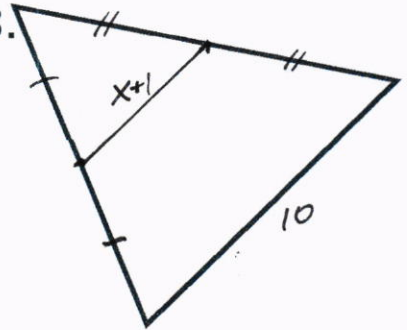
16.



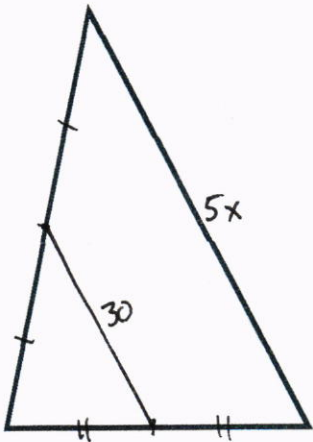
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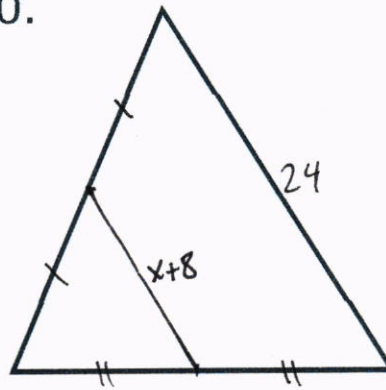
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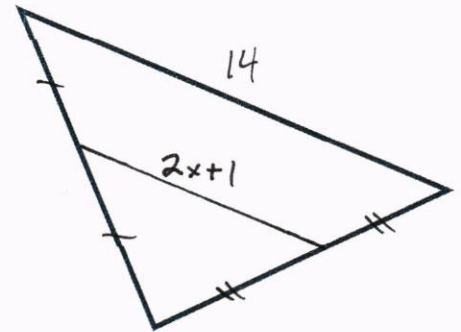
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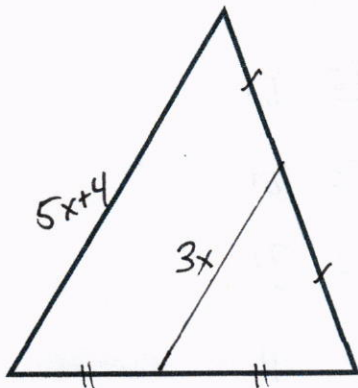
20.



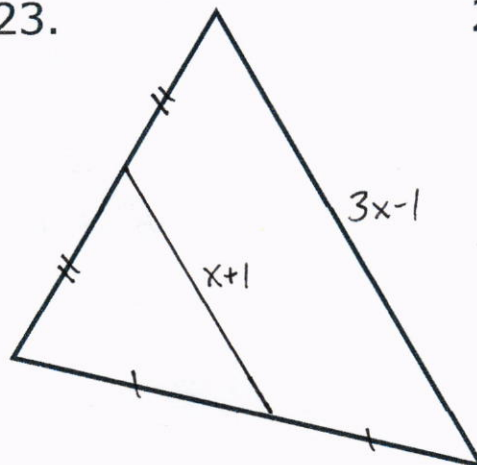
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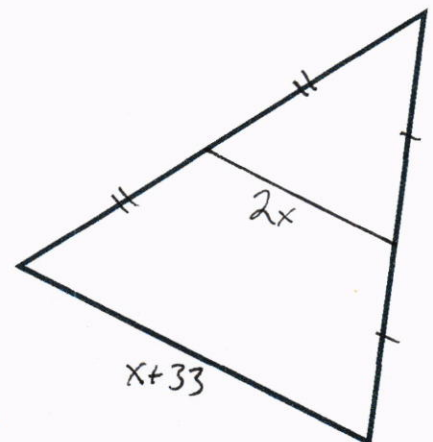
22.



23.



24.



STATION 4

TRIANGLE INEQUALITY

Decide if a triangle could be made with the following side lengths: (yes/no)

- 25. 23, 8, 19
- 26. 108, 103, 15
- 27. 6, 9, 22
- 28. 5, 7, 13
- 29. 5, 7, 12
- 30. 5, 7, 11.9

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Describe the possible lengths of the third side of the triangle given two sides.

- 30. 4, 6, ____
- 31. 22, 35, ____
- 32. 18, 11, ____

33. In triangle ABC, $\overline{AB} = 12$, $\overline{BC} = 15$, $\overline{AC} = 22$
Name the angles from smallest to largest

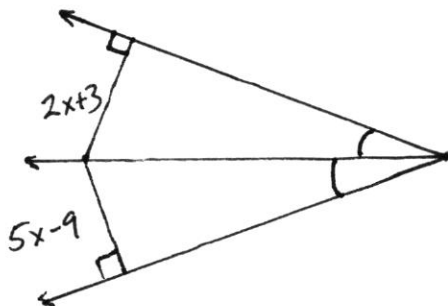
34. In triangle XYZ, $m\angle A = 57^\circ$, $m\angle B = 100^\circ$, $m\angle C = 23^\circ$
Name the sides from shortest to longest.

STATION 5

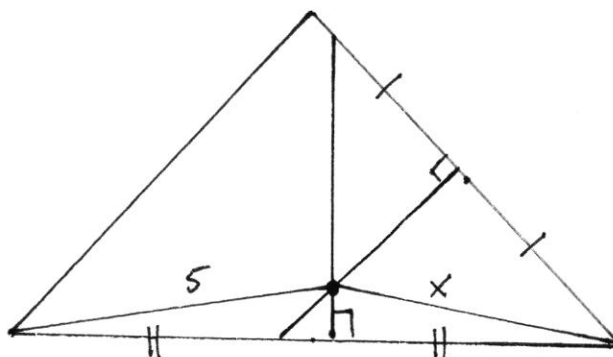
MISC

Find X

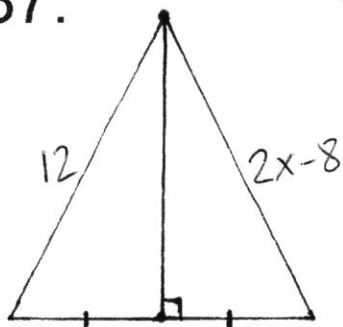
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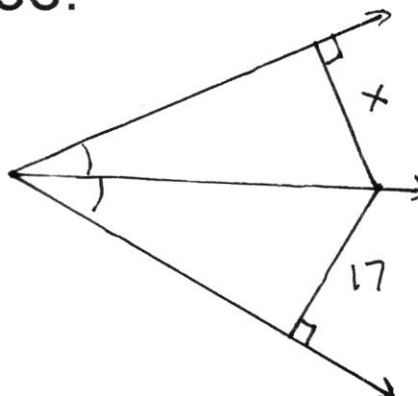
36.



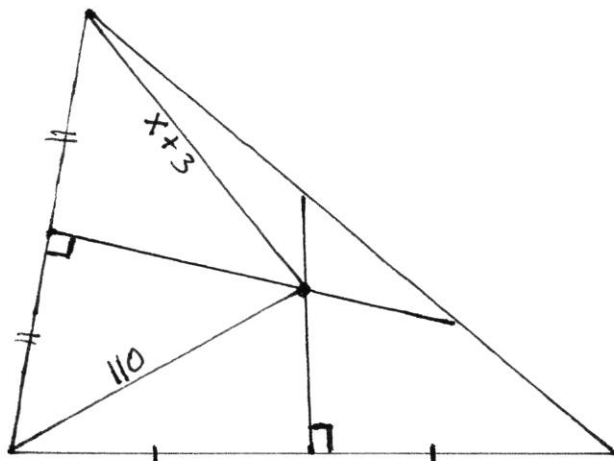
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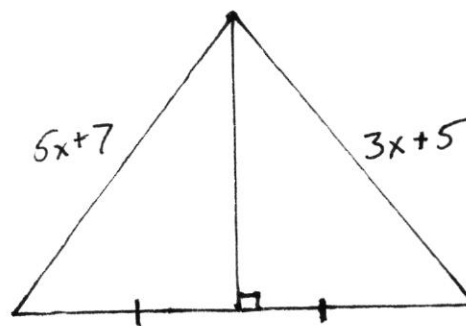
38.



39.



40.



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1 \perp bisector

2 altitude

3 midsegment

4 midsegment

5 median

6 angle bisector

7 Bisector

8 centroid

9 midpoint

$$10 \quad \overline{CB} = 14 \quad \overline{BE} = 21$$

$$11 \quad \overline{CG} = 11 \quad \overline{AG} = 33$$

$$12 \quad \overline{FC} = 4 \quad \overline{CD} = 8$$

$$13 \quad \overline{CA} = 6 \quad \overline{AG} = 9$$

$$14 \quad \overline{CE} = 10 \quad \overline{BE} = 30$$

$$15 \quad \overline{CG} = 5 \quad \overline{AC} = 10$$

$$16 \quad \cancel{x+20} \quad x=10$$

$$17 \quad x=16$$

$$18 \quad x+1=5 \rightarrow x=4$$

$$19 \quad 5x=60 \rightarrow x=12$$

$$20 \quad x+8=12 \rightarrow x=4$$

$$21 \quad 2x+1=7 \rightarrow x=3$$

$$22 \quad 2(3x)=5x+4 \rightarrow 6x=5x+4 \rightarrow x=4$$

$$23 \quad 2(x+1)=3x-1 \rightarrow 2x+2=3x-1 \rightarrow x=3$$

$$24 \quad 2(2x)=x+33 \rightarrow 4x=x+33 \rightarrow x=11$$

25 yes

26 yes

27 NO

28 NO

29 NO

30 yes

30 $2 < x < 10$

31 $13 < x < 57$

32 $7 < x < 29$

33. $\angle C, \angle A, \angle B$

34. $\overline{AB}, \overline{BC}, \overline{AC}$

$$(35) \quad 2x+3=5x-9$$

$$3=3x-9$$

$$12=3x$$

$$4=x$$

$$(36) \quad x=5$$

$$(37) \quad 2x-8=12$$

$$2x=20$$

$$x=10$$

$$(38) \quad x=17$$

$$(39) \quad x+3=110$$

$$x=107$$

$$(40)$$

$$5x+7=3x+5$$

$$2x+7=5$$

$$2x=-2$$

$$x=-1$$